

1. A sample-stage for a scanning electron microscope, comprising:

(a) a base, having a left end, a right end, a top surface;

(b) a horizontal support member, having a left end, a right end, a top surface, a bottom surface, a first aperture perpendicular to the top surface and between the left end and the right end which extends completely through the horizontal support member;

(c) a vertical support member, having a bottom surface, a top surface, a left side, and a right surface, where the bottom surface of the vertical support member abuts the left side and top surface of the base, where the top surface of the vertical support member abuts the left end and bottom surface of the horizontal support member so that a portion of the right surface of the vertical support member is directly below the first aperture of the horizontal support member, where the right surface of the vertical support member nearest the top surface of the vertical support member is to the left of the first aperture of the horizontal support member, and where the right surface of the vertical support member nearest the bottom surface of the vertical support member is to the right of the first aperture of the horizontal support member so that the right surface of the vertical support member is at a user-definable angle as compared to the left side of the vertical support member;

(d) a collimator, having a top surface, a bottom surface, a left side, a right side, and a second aperture perpendicular to the top surface and completely through the collimator, where the second aperture has a diameter equal to that of the first aperture of the horizontal support member, where the bottom surface of the collimator abuts the top surface of the horizontal support member so that the first aperture and the second aperture are in

alignment, and where the collimator is of a material that absorbs electrons incident therewith;

(e) a first reflector, abutting the right surface of the vertical support member, where the first reflector is of a suitably high atomic number material; and

5 (f) a second reflector, abutting a portion of the top surface of the base that is not covered by the vertical support member, where the second reflector is made of a suitably high atomic number material.

2. The device of claim 1, wherein the base comprises a base that is 10 mm long, 2 mm high, and  
10 is made of aluminum.

3. The device of claim 1, wherein the horizontal support member comprises a horizontal support member that is 10 mm long, 2 mm high, has a first aperture diameter of 1 mm, and is made of aluminum.

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4. The device of claim 1, wherein the vertical support member is comprised of a vertical support member having a height of 10 mm, is made of aluminum, and the right surface is at an angle in of 10 degrees.

20 5. The device of claim 1, wherein the collimator is comprised of graphite.

6. The device of claim 1, wherein the first reflector and the second reflector are each comprised of:

- (a) a silicon substrate; and
- (b) a suitably high atomic number material of 1 micron thickness selected from the group of suitable high atomic number materials consisting of gold, tungsten, platinum, and lead, deposited onto the silicon substrate.

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7. The device of claim 2, wherein the horizontal support member comprises a horizontal support member that is 10 mm long, 2 mm high, has a first aperture diameter of 1 mm, and is made of aluminum.

10 8. The device of claim 7, wherein the vertical support member is comprised of a vertical support member having a height of 10 mm, is made of aluminum, and the right surface is at an angle in of 10 degrees.

9. The device of claim 8, wherein the collimator is comprised of graphite.

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10. The device of claim 9, wherein the first reflector and the second reflector are each comprised of:

- (a) a silicon substrate; and
- (b) a suitably high atomic number material of 1 micron thickness selected from the group of suitable high atomic number materials consisting of gold, tungsten, platinum, and lead, deposited onto the silicon substrate.

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